

## Snowcat triggered avalanche in Swan Creek

Swan Creek  
Northern Gallatin  
2/27/2020  
Code  
SS-AKu-R3-D3-O  
Elevation  
7800  
Aspect  
W  
Latitude  
45.37610  
Longitude  
-111.09400  
Notes

GNFAC investigation: We went and looked at the avalanche that partially buried a groomer without injury to the driver at 8:15 p.m. the night before (2/27). The [slide](#) broke on facets at the ground and was 2-3' deep, 100' wide, and ran 600' slope distance. It put 8' of debris on the road cut. The slope was west facing at 7,500' and averaged 38 degree steep in the [starting zone](#) . Weak snow at the ground is found throughout our advisory area.

The groomer triggered the avalanche when he was clearing a wind drift from the road. The groomer is badly damaged.

Crown: N45.38528, W111.06487, 7802 feet

Toe of debris: N45.38554, W111.06693, 7482 feet

Alpha Angle: 30 degrees

Billings Gazette Article [HERE](#).

Number of slides  
1  
Number caught  
1  
Number buried  
0  
Avalanche Type  
Soft slab avalanche  
Trigger  
Snowcat  
Trigger Modifier  
u-An unintentional release  
R size  
3  
D size  
3  
Bed Surface

O - Old snow

Problem Type

Persistent Weak Layer

Slab Thickness

36.0 inches

Vertical Fall

400ft

Slab Width

130.00ft

Weak Layer Grain type

Depth Hoar

Weak Layer grain size

2.00mm

Weak Layer Hardness

F

Slab Layer Grain Type

Rounded Grains

Slab Layer Grain Size

1.00mm

Slab Layer Hardness

1F

Images

[Groomer Avalanche Profile - 29 Feb](#)

[Groomer triggered slide, overview](#)

[Groomer triggered slide, crown](#)

[Groomer triggered slide, debris on road](#)

[Groomer triggered slide, groomer and debris 2](#)

[Groomer triggered slide, groomer and debris](#)

[Groomer triggered slide, looking up path](#)

[Groomer triggered slide, looking down path](#)

Attached Videos

[Avalanche destroys groomer - 28 Feb](#)

Slab Thickness units

inches

Single / Multiple / Red Flag

Single Avalanche

Advisory Year

[19-20](#)